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Filed: June 29, 2000

REMARKS

As an initial matter, Applicants would like to thank the esteemed Examiner for meeting with Applicants' representative, Jerald Meyer, on December 5, 2002. During the meeting, Mr. Meyer stressed the differences between the claimed invention and the prior art, and agreed that the limitations from the preamble should be moved into the body of the claim in order to positively claim the desired limitation. Applicants have amended claim 12 to incorporate such limitations within the body of the claim.

Turning now to the outstanding Office Action, following entry of this amendment, claims 12-21 and 23-32 are present in this application. A complete listing of the claims as they currently stand is attached with this response and amendment. Claims 12, 16 and 17 has been amended to clarify the language and more distinctly claim what Applicants consider to be the inventive subject matter.

Support for the amendments to claim 12 may be found throughout the specification as originally filed, in particular page 8, lines 22-28. Applicant respectfully submits that no new matter within the meaning of 35 U.S.C. 132 is added by the amendments and newly submitted claims.

Claims 12-14 and 23-24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Bastioli et al. (U.S. Patent No.

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5,462,980). Claims 15, 25 and 26 stand rejected under 35 U.S.C. 103(a) as being obvious over Bastioli et al. in view of Nakajima et al. (U.S. Patent No. 5,098,606); claims 16, 17, 21 and 27 stand rejected as being obvious over Bastioli et al. in view of Wittwer et al. (U.S. Patent No. 4,673,438); and claims 18-20 and 28-32 stand rejected as being obvious over Bastioli et al. in view of Wittwer et al. and in further view of Bastioli et al. (U.S. Patent No. 5,569,692). For ease of understanding and brevity of response, Applicants have grouped the old rejections with the new rejections where appropriate in order to refrain from duplicating arguments.

With entry of the above attached amendments, Applicant respectfully submits that the claims are now in condition for allowance.

1. REJECTION OF CLAIMS 12-14 AND 23-24 UNDER 35 U.S.C. 102(b)

Claims 12-14 and 23-24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Bastioli et al. (U.S. Patent No. 5,462,980) for the reasons set forth in the previous Office Action.

RESPONSE

Applicants respectfully traverse this rejection and request

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reconsideration and withdrawal thereof.

Applicants respectfully submit that the reference fails to anticipate the claims. The test for anticipation is whether each and every element as set forth is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP § 2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131. The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Claim 12, as amended herein, is directed to a mass comprising at least 45% by weight of an amorphous starch, water, and at least one organic softener in at least 12% by weight with respect to the weight of the water-free starch, wherein the mass is a homogenised mass having a limiting viscosity index of at least 40 ml/g, and wherein the starch has an amylopectin content of greater or equal 50% by weight with respect to the weight of the starch in water-free condition and is obtainable from native or chemically-modified starch. Claims 13-14 and 23-24 are dependent from claim 12 and necessarily contain all of the limitations found therein. As can be seen, Applicants have amended claim 12 to positively claim the

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limitation that the mass is a homogenised mass, as was discussed during the interview with the Examiner.

Applicants respectfully reiterate that which was discussed in the interview, namely that Bastioli et al. fail to teach each and every claimed element of claims 12-14 and 23-24. In particular, it is abundantly clear that Bastioli et al. fail to teach a homogenized starch-containing mass, as is required by claim 12 (Applicants also direct the Examiner's attention to the declaration of Mr. Menard, filed with the previous response). According to Mr. Menard, "homogenized" is a term of art that is understood as meaning a system with only one phase, independent from the number of components. This is how the limitation in claim 12 is interpreted within the art.

Bastioli et al., on the other hand, disclose a material having a laminar structure of at least two different components, and therefore the product is not homogenized, as is required in the instant claims. The laminar structure of the materials formed by Bastioli et al. is clearly shown in Figures 1, 3-5 and 8-11 of the patent. The figures are of scanning electron microscope photographs showing that the compositions of Bastioli et al. are not homogenized. This was agreed upon by the parties during the interview with the Examiner.

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Applicants further reiterate that, as is stated in column 2, lines 53-57 of the reference, "when films produced with the use of amylose starches or conventional starches are observed by SEM (scanning electron microscope), on the other hand, they show a microstructure formed by microglobules constituted by an interpenetrated synthetic polymer and starch structure." (Emphasis added). Thus, this is further evidence that no homogenized mass is obtained, but rather a separation of the starch and synthetic polymeric compounds is observed.

The products of the present claims as amended herein, on the other hand, are required to be homogenized masses. Applicants direct the Examiner's attention to the scanning electron microscope images Attached to Mr. Menard's declaration. The scanning electron microscope image is a cross-section through a broken part of foil made from a composition according to claim 12. It can be seen that the broken part consists of a homogenous material. It is very evident that the material is homogenous in nature.

Thus, Applicants respectfully submit that Bastioli et al. fail to anticipate the claims because the reference does not teach a homogenized starch-containing mass as is required by the claims. Therefore, Applicants respectfully request reconsideration and withdrawal of this rejection.

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2. REJECTION OF CLAIMS 15, 25 AND 26 UNDER 35 U.S.C. 103(a)

Claims 15, 25 and 26 stands rejected under 35 U.S.C. 103(a) as being obvious over the Bastioli et al. patent (U.S. Patent No. 5,462,980) in view of the Nakajima et al. patent (U.S. Patent No. 5,098,606) for the reasons set forth in the Office Action.

RESPONSE

The references of record, Bastioli et al. and Nakajima et al., do not teach or suggest applicant's inventive subject matter as a whole, as recited in the amended claims. Further, there is no teaching or suggestion in this references which would lead the ordinary skilled artisan to modify the references to derive the subject matter as defined in the amended claims.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under § 103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of nonobviousness.

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A. The present inventive subject matter

Claim 15 depends from claim 13, which further depends from claim 12 and adds the further limitation of the mass containing glycerine monostearate and lecithin in a weight ratio of 1:1.5. Since claim 15 depends from claim 13 (and therefore from claim 12), it necessarily contains all of the limitations found in claim 12 and thus if claim 12 is not obvious over the references, then neither is claim 15. Likewise claims 25 and 26 depend from claim 15 (and therefore from claim 12) and add further limitations to the weight ratios found in claim 15.

B. The prior art and the differences therein

As is discussed above with respect to the anticipation rejection, the present inventive subject matter is directed to a homogenized starch-containing mass. Claim 12 has been amended in order to positively claim this limitation. Applicants respectfully submit that the Bastioli et al. patent discloses a polymeric composition comprising a starchy material component comprising at least 78% by weight of amylopectin, and a synthetic thermoplastic polymeric component and urea. Bastioli et al. found that the thermoplastic polymeric compositions formed laminar structures from the plurality of laminar microphases of the synthetic polymer

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alternating with the starchy phases. The aim of the Bastioli et al. patent was to provide films or sheets having improved liquid- and gas-barrier and mechanical properties in comparison with films produced from conventional starches with high amylose content. The laminar structures were found to improve the liquid- and gas-barrier structures. In other words, Bastioli et al. purposely did not provide homogenized masses, but rather a material having laminar structures of at least two different components in order to improve the barrier structures. This was reiterated in the interview between the Examiner and the Applicants' representative.

Further, Bastioli et al. do not disclose or suggest a material which can be used for the formation of soft capsules. In general, materials that are not homogenous are not reliably reproducible with respect to the properties because the differences in homogeneity cannot be exactly reproduced. Also, the polymeric compounds used within the Bastioli et al. formulations will not dissolve under conditions occurring in the human stomach and/or intestinal tract. Thus, there would be no reason or motivation to try to alter the Bastioli et al. compounds to try to achieve the presently claimed subject matter in independent claim 12 and dependent claims 15, 25 and 26.

Turning now to the Nakajima et al. patent, this patent does

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not deal with soft capsules, much less homogenized starch-containing masses. In addition, Applicants note that Nakajima et al., at column 3, lines 27-28, do not refer to glycerine monostearate but to POE glicerine monostearate, which is polyoxyethylene glycerine monostearate. This is not the lubricant referred to in claims 12, 15, 25 and 26 of the present application.

Thus Applicants respectfully submit that there is no motivation or teaching in either reference to combine them in an attempt to achieve the present inventive subject matter. Assuming *arguendo* that the references were combined, Applicants respectfully submit that the combination would still be lacking the elements of the present claims. In particular, the combination would not be a homogenized starch-containing mass with the properties listed in claims 12, 15, 25 and 26.

Accordingly, Applicant respectfully submits that the present inventive subject matter as claimed is not obvious over the Bastioli et al. and Nakajima et al. patents, as there is no teaching or suggestion in the references to modify them, and the combination thereof would not achieve the presently claimed products. Applicants respectfully request reconsideration and withdrawal of this rejection.

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3. REJECTION OF CLAIM 16, 17, 21 AND 27 UNDER 35 U.S.C. 103(a)

Claims 16, 17, 21 and 27 stand rejected under 35 U.S.C. 103(a) as being obvious over the Bastioli et al. patent (U.S. Patent No. 5,462,980) in view of the Wittwer et al. patent (U.S. Patent No. 4,673,438) for the reasons set forth in the Office Action.

RESPONSE

The references of record, Bastioli et al. and Wittwer et al., do not teach or suggest applicant's inventive subject matter as a whole, as recited in the amended claims. Further, there is no teaching or suggestion in this references which would lead the ordinary skilled artisan to modify the references to derive the subject matter as defined in the amended claims.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under § 103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of nonobviousness.

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A. The present inventive subject matter

Claims 16, 17 and 21 depend from claim 12 (claim 21 depends from claim 17) and add further limitations including the mass additionally containing an aggregate in a weight range of 3.5% by weight to 15% by weight with respect to the total weight of the mass, wherein the aggregate is selected from the group consisting of carbonates and/or hydrogen carbonates of alkali and/or earth alkali ions, preferably calcium carbonate, amylases, further decomposing agents, colourings, preservatives, anti-oxidants, physically and/or chemically modified biopolymers and vegetable polypeptides. Further, claim 27 depends from claim 16 and adds the further limitation regarding the aggregate weight range. Since claims 16, 17 and 21 depends from claim 12 (and claim 27 depends from claim 21), they necessarily contains all of the limitations found in claim 12 and thus if claim 12 is not obvious over the references, then neither are claims 16, 17, 21 and 27.

B. The prior art and the differences therein

Applicants reiterate herein the arguments made above with respect to the Bastioli et al. patent, namely that while the present inventive subject matter is directed to a homogenized starch-containing mass and a soft capsule made therefrom,

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Applicants respectfully submit that the Bastioli et al. patent does not disclose or teach this as Bastioli et al. disclose a polymeric composition comprising a starchy material component comprising at least 78% by weight of amylopectin, and a synthetic thermoplastic polymeric component and urea. It is important to note that Bastioli et al. found that the thermoplastic polymeric compositions formed laminar structures from the plurality of laminar microphases of the synthetic polymer alternating with the starchy phases. The aim of the Bastioli et al. patent was to provide films or sheets having improved liquid- and gas-barrier and mechanical properties in comparison with films produced from conventional starches with high amylose content. The laminar structures were found to improve the liquid- and gas-barrier structures. In other words, Bastioli et al. purposely did not provide homogenized masses, but rather a material having laminar structures of at least two different components in order to improve the barrier structures.

Further, Bastioli et al. do not disclose or suggest a material which can be used for the formation of soft capsules. In general, materials that are not homogenous are not reliably reproducible with respect to the properties because the differences in homogeneity cannot be exactly reproduced. Also, the polymeric compounds used within the Bastioli et al. formulations will not

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dissolve under conditions occurring in the human stomach and/or intestinal tract. Thus, there would be no reason or motivation to try to alter the Bastioli et al. compounds to try to achieve the presently claimed subject matter in claims 12 and the dependent claims rejected hereunder.

Turning now to the Wittwer et al. patent, this patent does not deal with soft capsules, much less homogenized starch-containing masses. In fact, Applicants respectfully submit that Wittwer et al. teach the manufacturing of hard capsules by an injection molding process. Because hard capsules are being made in the injection molding process, there is no need for forming highly elastic "endless" tapes with sufficient strength, the capability of being weldable, or the capability of forming stable seams by penetration of the molecules into each other. The present inventive subject matter, on the other hand, is directed to a material which fulfills those parameters.

In addition, Applicants reiterate that the manufacturing parameters of Wittwer et al. are too harsh to obtain a product in accordance with the present claims. The instant invention is claimed as a homogenized mass having a limiting viscosity index of at least 40 ml/g. This is obtained by a very controlled process, as explained in the application. The process is carefully kept

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under a temperature of 160°C and the kneading energy of the material does not exceed 0.3 kWh/kg. If the working conditions are too harsh, then the starch molecules will become greatly broken, thus leading to a mass with properties that are not in accordance with the claims.

The conditions of the Wittwer et al. process include temperatures up to 240°C and high pressures. These conditions are not suitable for obtaining the desired products of the present claims. Further, Wittwer et al. do not teach lowering the temperature and pressures in an attempt to achieve the present claims. This is because Wittwer et al. are only concerned with obtaining a material that can be injection-molded into hard capsules, not homogenized starch-containing masses of the present invention.

Thus, Applicants respectfully submit that there is no motivation or teaching in either reference to combine them in an attempt to achieve the present inventive subject matter. Assuming *arguendo* that the references were combined, Applicants respectfully submit that the combination would still be lacking the elements of the present claims. In particular, the combination would not be a homogenized starch-containing mass with the properties listed in the rejected claims.

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Accordingly, Applicant respectfully submits that the present inventive subject matter as claimed is not obvious over the Bastioli et al. and Wittwer et al. patents, as there is no teaching or suggestion in the references to modify them, and the combination thereof would not achieve the presently claimed products. Applicants respectfully request reconsideration and withdrawal of this rejection.

4. REJECTION OF CLAIM 18-20 AND 28-32 UNDER 35 U.S.C. 103(a)

Claims 18-20 and 28-32 stand rejected under 35 U.S.C. 103(a) as being obvious over the Bastioli et al. patent (U.S. Patent No. 5,462,980) in view of the Wittwer et al. patent (U.S. Patent No. 4,673,438) as applied to claim 16, 17 and 21 above, and further in view of Bastioli et al. (U.S. Patent No. 5,569,692) for the reasons set forth in the Office Action.

RESPONSE

The references of record, the two Bastioli et al. patents and the Wittwer et al. patent, do not teach or suggest applicant's inventive subject matter as a whole, as recited in the amended claims. Further, there is no teaching or suggestion in this references which would lead the ordinary skilled artisan to modify

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the references to derive the subject matter as defined in the amended claims.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under § 103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of nonobviousness.

A. The present inventive subject matter

Claims 18-20 depend from claim 12 (claim 21 depends from claim 17) and add further physical limitations to the soft capsule body. Since claims 18-20 depend from claim 17 and therefore from claim 12, they necessarily contains all of the limitations found in claim 12 and thus if claim 12 is not obvious over the references, then neither are claims 18-20.

Likewise, claims 28-32 depend from 18-20, respectively and add further limitations thereto. Since claims 28-32 depend from claims 18-20, claims 28-32 are not obvious over the prior art for the same reasons as listed above.

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B. The prior art and the differences therein

As is discussed above with respect to the previous 103(a) rejections, while the present inventive subject matter as claimed in amended claim 12 is directed to a homogenized starch-containing mass and a soft capsule made therefrom, Applicants respectfully submit that the Bastioli et al. ('980) patent discloses a polymeric composition comprising a starchy material component comprising at least 78% by weight of amylopectin, and a synthetic thermoplastic polymeric component and urea. The amendments to claim 12 make it clear that the present inventive subject matter is directed to a homogenised starch-containing mass. On the other hand, Bastioli et al. found that the thermoplastic polymeric compositions formed laminar structures from the plurality of laminar microphases of the synthetic polymer alternating with the starchy phases.

The aim of the Bastioli et al. ('980) patent was to provide films or sheets having improved liquid- and gas-barrier and mechanical properties in comparison with films produced from conventional starches with high amylose content. The laminar structures were found to improve the liquid- and gas-barrier structures. In other words, Bastioli et al. purposely did not provide homogenized masses, but rather a material having laminar structures of at least two different components in order to improve

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the barrier structures. The laminar structures allowed Bastioli et al to achieve their goal of providing improved barrier mechanical properties in their films and sheets.

Further, Bastioli et al. do not disclose or suggest a material which can be used for the formation of soft capsules. In general, materials that are not homogenous are not reliably reproducible with respect to the properties because the differences in homogeneity cannot be exactly reproduced. Also, the polymeric compounds used within the Bastioli et al. formulations ('980 patent) will not dissolve under conditions occurring in the human stomach and/or intestinal tract. Thus, there would be no reason or motivation to try to alter the Bastioli et al. compounds to try to achieve the presently claimed subject matter in claims 12 and the dependent claims under rejection here.

In addition, as was also stated above with respect to the Wittwer et al. patent, this patent does not deal with soft capsules, much less homogenized starch-containing masses. In fact, Applicants respectfully submit that Wittwer et al. teach the manufacturing of hard capsules by an injection molding process. Because hard capsules are being made in the injection molding process, there is no need for forming highly elastic "endless" tapes with sufficient strength, the capability of being weldable,

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or the capability of forming stable seams by penetration of the molecules into each other. The present inventive subject matter, on the other hand, is directed to a material which fulfills those parameters.

In addition, Applicants again reiterate that the manufacturing parameters of Wittwer et al. are too harsh to obtain a product in accordance with the present claims. The instant invention is claimed as a homogenized mass having a limiting viscosity index of at least 40 ml/g. This is obtained by a very controlled process which is detailed in the application. The process is carefully kept under a temperature of 160°C and the kneading energy of the material does not exceed 0.3 kWh/kg. If the working conditions are too harsh, then the starch molecules will become broken, thus leading to a mass with properties that are not in accordance with the claims.

The conditions of the Wittwer et al. process include temperatures up to 240°C and high pressures. These conditions are not suitable for obtaining the desired products of the present claims. Further, Wittwer et al. do not teach lowering the temperature and pressures in an attempt to achieve the present claims. This is because Wittwer et al. are only concerned with obtaining a material that can be injection-molded into hard

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capsules, not homogenized starch-containing masses of the present invention. Thus, there is no motivation to modify the Wittwer et al. patent.

Turning now to the second Bastioli et al. patent ('692), Applicants again respectfully submit that the patent does not disclose or teach a homogenized starch material, as is required by the amended claims. Instead, the '692 patent teaches the use of destructurized starch which can be mixed with a thermoplastic polymer in order to obtain biodegradable plastics. A destructurized starch is one in which the molecular structure has become disorganized. In other words, the large starch molecules have been broken into smaller molecules. As is argued above, this is contrary to the desired result in the present claims, and as such the '692 patent fails to teach or render obvious the physical characteristics of the present claims. Nor is there any motivation to modify the teachings of the '692 patent because, in column 1, Bastioli et al. state that the destructurized nature of the starches in the patent are not suitable for filming processes. Thus, there would be no motivation to attempt to use the '692 patent to achieve the presently claimed inventive subject matter.

Accordingly, Applicant respectfully submits that the present inventive subject matter as claimed is not obvious over the

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combination of references, as there is no teaching or suggestion in any of the references to modify them, and the combination thereof would not achieve the presently claimed products. Applicants respectfully request reconsideration and withdrawal of this rejection.

PATENTABILITY OF CLAIMS OVER NEWLY CITED PRIOR ART

Applicants are concurrently filing an Information Disclosure Statement with this response and amendment. The three references being cited to the Examiner were cited in the search reports of the corresponding European and PCT applications. Applicants respectfully submit that the claims are patentable over the newly cited references for the following reasons.

WO 92/09274 (equivalent to U.S. Patent No. 5,554,385):

As claimed in amended claim 12, the present inventive subject matter is directed to a homogenised mass having a limiting viscosity index of at least 40 ml/g. Applicants respectfully submit that WO 92/09274 (the '274 reference) does not teach or disclose this limitation. Further, the presently claimed homogenised starch mass contains at least 45% by weight of an amorphous starch with an amylopectin content greater or equal to 50% by weight. The '274 reference, on the other hand, explicitly

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requires the use of a starch containing at least 50% of amylose (see bottom of page 3 of the '274 reference). As is indicated on page 3, fourth paragraph, of the present application, "starches with a high amylose content are not suitable casing materials since the tendency of the amylose chains to retrograde stands in the way of a quick dissolving of the capsule casing" in the stomach of the user. Thus, since the '274 reference fails to teach these two important limitations, Applicants respectfully submit that the claims are novel and unobvious over the '274 reference.

Furthermore, the claims are not obvious over the '274 reference for other reasons. The presently claimed inventive subject matter is the first product comprising a starch-containing mass which is suitable for the formation of capsules. In particular, the product is especially suitable for forming soft capsules. In contrast to the '274 reference, a mass containing a starch with an amylopectin content of greater or equal to 50% by weight must be used in the present claims. In fact, in the '274 reference, starch is only used as an additional component, with gelatine being the main component.

Since the '274 reference fails to teach the limitations of the present claims, and since the claims are unobvious over the reference, Applicants respectfully submit that the claims are

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patentable over WO 92/09274.

WO 90/14938 (equivalent to U.S. Patent No. 5,314,754):

The present inventive subject matter, as claimed in amended claim 12, is directed to a homogenised mass having a limiting viscosity index of at least 40 ml/g. Applicants respectfully submit that WO 90/14938 (the '938 reference) does not teach or disclose this limitation. Further, the presently claimed homogenised starch mass contains at least 45% by weight of an amorphous starch with an amylopectin content greater or equal to 50% by weight. The '938 reference, on the other hand, explicitly requires the use of a starch containing at least 50% of amylose (see page 4 of the '938 reference - definition of "high amylosic material"). As is indicated on the third page of the present application, "starches with a high amylose content are not suitable casing materials since the tendency of the amylose chains to retrograde stands in the way of a quick dissolving of the capsule casing" in the stomach of the user. Thus, since the '938 reference fails to teach these two important limitations, Applicants respectfully submit that the claims are novel and unobvious over the '938 reference.

Furthermore, the presently claimed inventive subject matter is

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the first product comprising a starch-containing mass which is suitable for the formation of capsules. In particular, the product is especially suitable for forming soft capsules. In contrast to the '938 reference, a mass containing a starch with an amylopectin content of greater or equal to 50% by weight must be used in the present claims. In fact, the '938 reference does not teach that the mass described therein may be used for the formation of shaped bodies such as soft capsules. Neither is there any motivation for doing so, given the fact that masses containing high levels of amylose are not suitable for making soft capsules.

Since the '938 reference fails to teach the limitations of the present claims, and since there is no motivation or teaching within the reference to modify it in order to attempt to achieve the presently claimed subject matter, Applicants respectfully submit that the claims are patentable over WO 90/14938.

WO 90/05161 (equivalent to U.S. Patent No. 5,554,385):

As currently amended, claim 12 is directed to a mass comprising at least 45% by weight of an amorphous starch, water, and at least one organic softener in at least 12% by weight with respect to the weight of the water-free starch, wherein the mass is a homogenised mass having a limiting viscosity index of at least 40

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ml/g, and wherein the starch has an amylopectin content of greater or equal 50% by weight with respect to the weight of the starch in water-free condition and is obtainable from native or chemically-modified starch.

WO 90/05161 (the '161 reference) discloses a homogenised mass containing starch and a softener, wherein the starch may have a limiting viscosity index of at least 40 ml/g (see tables II and III). However, the reference indicates that the starch used is potato starch, which has an amylopectin content exceeding 50% by weight (see example on page 16).

Applicants respectfully submit, though, that the presently claimed invention is novel and unobvious over the '161 reference. The starch used in the '161 reference has been essentially dried. On page 3 (second paragraph) of the '161 reference, it is noted that a high water content of the starch has a negative influence on the workability of the starch. This statement is also made on page 11 of the reference. Further, on page 13 of the '161 reference, indications are made that it is necessary to remove the water content of about 17% which is present in native starch. And, in the third paragraph of page 13, the specification states that the native starch has to be completely dried prior to use.

In contrast to the '161 reference, the application claims

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subject matter directed to a mass in which a native starch or a chemically modified starch must be used as the starch material. In other words, a starch which naturally has a considerable amount of water must be used. As can be seen on page 13 of the '161 reference, native starch contains about 17% by weight.

Furthermore, Applicants respectfully submit that chemically modifying the native starch to be used in the present claims does not alter the water content. The drying of the native starch, as indicated in the '161 reference, is instead a physical process.

In addition, Applicants have surprisingly found that shaped bodies having an elongation at rupture of 100% can be obtained from the homogenised masses of the present claims (i.e., those masses containing a starch produced from native or chemically-modified starch and having an amylopectin content of at least 50% and a limiting viscosity index of at least 40 ml/g). The '161 reference, on the other hand, teaches the use of a starch which has been preliminarily dried to remove the water. As can be seen in table III, example I, such a mass containing a dried starch only yields an elongation at rupture of 40% to 55%. The elongation at rupture of the mass in the '161 reference, therefore, is significantly below the elongation value at rupture of the mass according to the present invention. This shows that, by using a native or

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chemically-modified starch with a significant amount of water, Applicants were able to obtain a homogenised mass which significantly differs in performance from a mass obtained from a completely dried starch. Thus, Applicants respectfully submit that the '161 reference teaches away from the presently claimed subject matter.

In summary, Applicants respectfully submit that the claims pending in the present application are novel and unobvious over the '161 reference.

CONCLUSION

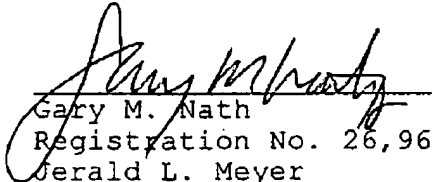
In view of the foregoing, applicant respectfully requests the Examiner to reconsider and withdraw the rejection of the claims and to allow all of the claims pending in this application.

If the Examiner has any questions or wishes to discuss this matter, the Examiner is welcomed to telephone the undersigned attorney.

Respectfully submitted,,
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Date: March 27, 2003

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